

REMARKS

I. OBJECTION TO THE DISCLOSURE

The disclosure was objected to because of the informalities set forth on page 2 of the Office Action.

The suggested changes have been made in the paragraphs on pages 4 to 7 of the specification. The suggested commas have been inserted and the misspelling corrected.

Additional description has been added in the detailed description to fully describe the embodiments shown in figs. 2, 3 and 4 including the elements designated by reference number 9 and 9'. These changes provide basis for the new claims. No new matter has been entered.

For the foregoing reasons and because of the changes in the specification paragraphs above, withdrawal of the objection to the disclosure is respectfully requested.

II. REJECTION UNDER 35 USC 112, first paragraph

Claims 1 to 9 were rejected under 35 U.S.C. 112, first paragraph.

Claims 1 to 9 were canceled, obviating their rejection under 35 U.S.C. 112, first paragraph. New claims 10 to 23 however contain similar subject matter

as canceled claims 1 to 9, except that the term "reproducible spring properties" is not included in the new claims and additional distinguishing wording is included in the new claims, described more fully hereinbelow.

New claims 10 to 13 include a first set of claims 10 to 17 for the embodiments shown in figures 1 to 4 and a separate second set of claims 18 to 23 for the embodiment shown in figure 5.

The term "reproducible spring properties" has not been used in the new independent or dependent claims. This term of course provides no information regarding the type of properties or how reproducible the properties are.

However new dependent claims 11 and 12 and 19 and 20 actually provide a precise clarification of the term "reproducible spring properties". These dependent claims state that the coil spring is a microgalvanic coil spring of a certain thickness and length with certain dimensional tolerance, so that a reproducible coupling can be obtained when a group of the MIGA coil springs are made in a batch process. It is important that these couplings have reproducible coupling properties, which are dependent on the precise dimensions of the coil spring. Basis for these new dependent claims appears in the last three paragraphs on page 4 of the applicants' originally filed specification.

Undue experimentation would not be required to make a MIGA spring with these dimensions and tolerances, because the applicants disclose several methods for making the spring in this way on page 4 of the specification, including the preferred method involving UV lithography. The features of the

methods for making a MIGA spring that are described on page 4 of the specification are known and described in various prior art references.

It is well established that what is known in the art is best left out of a patent specification. For example, the Federal Circuit Court of Appeals has said:

"A patent need not teach, and preferably omits, what is well known in the art". *Hybritech Inc. v. Monoclonal Antibodies, Inc.*, 231 U.S.P.Q. 81 (Fed. Cir. 1986).

The wording of the independent claims has been chosen to eliminate any uncertainty regarding the sliding contact. The sliding contact is an area or region on the contact element that contacts either a surface of the wave guide or the conductor strip. Each independent claim is drafted using "or" which connects the second to last paragraph with the last paragraph of the claim to avoid unnecessarily multiplying the number of claims. In one paragraph the sliding contact slides on the surface of the wave guide, while in the other paragraph the sliding contact slides on the conductor strip. The wording of the new claims never states that the sliding contact is glued to the wave guide or any other element because then it could not slide. However each independent claim could be divided into two independent claims and the number of claims could be multiplied if necessary to avoid confusion.

For the foregoing reasons it is respectfully submitted that none of the new claims 10 to 23 should be rejected under 35 U.S.C. 112, first paragraph, either for including subject matter that is not described in the specification so as to

enable one skilled in the art to make and/or use the invention or for being based on a specification that fails to provide an adequate written description.

III. INDEFINITENESS REJECTION

Claims 1 to 9 were rejected under 35 U.S.C. 112, second paragraph, for indefiniteness.

Claims 1 to 9 were canceled, obviating their rejection under 35 U.S.C. 112, second paragraph.

However new claims 10 to 23 contain similar subject matter as that in canceled claims 1 to 9, except that the term "reproducible spring properties" is not included in the new claims and additional distinguishing wording is included in the new claims, described more fully hereinbelow.

The observation regarding the various alternative embodiments on page 3 of the Office Action has been addressed by dividing the claims into two sets of claims. Claims 10 to 17 claim the embodiments shown in figures 1 to 4, while claims 18 to 23 claim the embodiments shown in figure 5. Figure 5 is significantly different from the other embodiments because a U-shaped spring is used instead of the coil spring shown in figures 1 to 4. The embodiments of claim 18 do not utilize a sliding contact — both ends of the contact element are fixed by adhesive at the respective contacting areas.

It is respectfully submitted that the wording of the independent claim 10 is not confusing. One skilled in the art can readily and easily understand from the

claim wording that a first contacting area of the contact element can be fixed in position by an electrically conductive adhesive while the second contacting area can slide on a surface. Also it is easy to understand that the contact element can be glued either to a surface on the waveguide or to the conductor strip. The mere presence of these latter alternatives in the claims should not be a cause for an indefiniteness rejection.

The "parallel configuration" is no longer applied to the embodiment claimed in claims 18 to 23 in which the spring is U-shape.

The term "means for" or "means of" is not used in the new claims.

The issue regarding the one contacting area and the other contacting area has been addressed by changing the claim wording and referring to a "first contacting area" and a "second contacting area". This latter wording is used in the detailed description so that the claims are now easily seen as based on the detailed description.

The suggestion regarding the relationship of the wave guide to the stepping transformer has been adopted and the wording used in claims 8 and 9 has been rephrased.

It is respectfully submitted that none of the new claims 10 to 23 should be rejected under 35 U.S.C. 112, second paragraph, for indefiniteness.

IV. ANTICIPATION REJECTION

Claims 1 to 7 and 9 were rejected under 35 U.S.C. 102 (b) as anticipated by Japanese ('002) reference (presumably as evidenced by the U.S. abstract). An English translation of this reference is respectfully requested if it is available in the U.S.P.T.O.

Cancellation of claims 1 to 7 and 9 has obviated this rejection. The new claims 10 to 23 are not anticipated by this JP reference because they include additional distinguishing limitations as described below.

The Japanese reference ('002) does disclose a converter arranged between a microstrip conductor 5 and a stepping transformer 3b of the wave guide 1. The converter does comprise a leaf spring 4 fixed at one end to the transformer and pre-tensioned so that its other end forms a sliding contact with the microstrip conductor. Note that leaf springs, e.g. a thin steel strip, are generally bendable but they usually cannot be easily stretched.

However the English abstract of the Japanese Patent ('002) does not disclose the manner in which the leaf spring 4 is attached to the conversion part (transformer) 3b. Such connection could be made mechanically or by soldering.

A. Claims 10 to 17

First, according to the new independent claim 10 the spring is a coil spring. A coil spring differs from a leaf spring.

Second, the new independent claim 10 clearly states that the fixed end of the coil spring or contact element is attached either to a surface of the wave guide or the conductor strip by an electrically conductive adhesive. The JP '002 reference does not limit the manner of the attachment.

Third, the circuit device of the JP '002 reference shows that the conductor strip is inside of the wave guide, however applicants' new independent claim 10 limits the circuit device to one in which the conductor strip is outside of the wave guide.

It is well established that each and every limitation of a claimed invention must be disclosed in a single prior art reference in order to be able to reject the claimed invention under 35 U.S.C. 102 (b) based on the disclosures in the single prior art reference. See M.P.E.P. 2131 and also the opinion in *In re Bond*, 15 U.S.P.Q. 2nd 1566 (Fed. Cir. 1990).

Thus the claims 10 to 17 are not anticipated by JP '002 because of the three features included in them described above; the coil spring is different from a leaf spring of JP '002, the conductor strip is outside of the wave guide and JP '002 does not disclose attachment by electrically conductive adhesive.

As to the dependent claims that further define the spring, namely claims 11 and 12, the JP reference does not teach a micro-galvanic spring with the claimed dimensions and tolerances for a reproducible coupling.

B. Claims 18 to 23

The JP reference teaches a circuit device comprising a contact element that is a leaf spring (which is generally understood to be bendable). The leaf

spring is fixed at one end of the transformer, but is pre-tensioned so that it is slidable on the conductor strip.

Thus the embodiment of claim 18 is different from the disclosed circuit device of the JP reference because both ends of the coil spring are fixed by adhesive. One end is fixed on the wave guide (transformer) and the other end is fixed on the conductor strip. In contrast in the JP reference one end slides on the conductor strip. The compensation of e.g. stresses caused by temperature changes in the case of the embodiment of claim 18 is provided by the flexibility of the U-shape coil spring.

Also as noted above the conductor strip is outside of the wave guide, which is the opposite from the disclosed connecting device in the JP reference.

In addition, at least the abstract of the JP reference does not teach an adhesive connection.

For the foregoing reasons and because of the new wording in new claims, it is respectfully submitted that none of the new claims 10 to 23 should be rejected under 35 U.S.C. 102 (b) as anticipated by the Japanese ('002) reference.

V. OBVIOUSNESS REJECTION

Claim 8 was rejected as obvious under 35 U.S.C. 103 (a) over the Japanese reference ('002), in view of Maillet, et al. Claim 8 has been canceled

obviating its rejection under 35 U.S.C. 103 (a), however the features of claim 8 are present in new claim 16.

New claim 16 includes the feature that surface 1a on the surface of the wave guide is perpendicular to the conductor strip. The perpendicular relationship of the conductor strip to the wave guide surface is not currently relied on to distinguish the claimed invention from the prior art.

Also Maillet, et al, do not disclose a circuit device for connecting a wave guide with a conductor strip that includes the key features of the invention, namely that the link 32 is a coil spring as in claim 10, and especially a micro-galvanic spring with the properties claimed in the dependent claims 11 and 12. Also Maillet, et al, do not show that the conductor strip is outside of the wave guide, as claimed in the independent claims.

It is well established by many U. S. Court decisions that to reject a claimed invention under 35 U.S.C. 103 there must be some hint or suggestion in the prior art of the modifications of the disclosure in a prior art reference or references used to reject the claimed invention, which are necessary to arrive at the claimed invention. For example, the Court of Appeals for the Federal Circuit has said:

"Rather, to establish obviousness based on a combination of elements disclosed in the prior art, there must be some motivation, suggestion or teaching of the desirability of making the specific combination that was made by the applicant...Even when obviousness is based on as single reference there must be a showing of a suggestion of motivation to modify the teachings of that reference.." *In re Kotzab*, 55 U.S.P.Q. 2nd 1313 (Fed. Cir. 2000). See also M.P.E.P. 2141

Maillet, et al, do not suggest an electrically conductive connection by means of a coil spring, which is fixed at each end as in the case of the embodiment of claim 18. Maillet, et al, teach the opposite, namely that the connection is made with a fixed bonding wire.

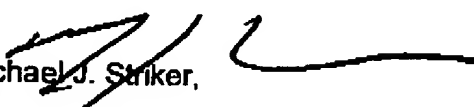
Thus critical differences between the circuit device of independent claims 10 and 18 and the device disclosed in the JP '002 are not suggested by the Maillet, et al, prior art U.S. Patent.

For the foregoing reasons and because of the new wording in new claims, it is respectfully submitted that none of the new claims 10 to 23 should be rejected under 35 U.S.C. 103 (a) as obvious over the Japanese ('002) reference, in view of Maillet, et al.

Should the Examiner require or consider it advisable that the specification, claims and/or drawing be further amended or corrected in formal respects to put this case in condition for final allowance, then it is requested that such amendments or corrections be carried out by Examiner's Amendment and the case passed to issue. Alternatively, should the Examiner feel that a personal discussion might be helpful in advancing the case to allowance, he or she is invited to telephone the undersigned at 1-631-549 4700.

In view of the foregoing, favorable allowance is respectfully solicited.

Respectfully submitted,


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